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Stephen C. Kaufman			EXAMINER	
Intellectual Property Law Dept.			PHAM, MICHAEL	
IBM Corporation				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/743,158	Applicant(s) AMITAY, EINAT
	Examiner MICHAEL PHAM	Art Unit 2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10 June 2010.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 66-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 66-75 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Claim Status

1. Claims 66-75 are new and have been examined.
2. Claims 1-65 have been cancelled.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 71 and 75 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The following limitations with respect to claims 71 and 75 do not appear to be disclosed by the specifications: “the step of adding the queries is performed only with a highly ranked portion of the identified documents”, and “updating the time stamps of reused ones of the added queries”.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. **Claims 66-73 and 75 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent 6571239 by Cole et. al. (hereafter Cole).**

Claim 66 :

Cole discloses:

“providing a document index for a collection of documents to be searched, the document index comprising terms that occur in the collection;”[See figure 1 and 2. Accordingly, providing a document index (figure 1 element 120, keyword index)for a collection of documents (figure 1 element 115, repository) to be searched (col. 3 lines 16-17, search engine matches the query against the keyword index), the document index (figure 1 element 120, keyword index) comprising terms (figure 1 element 120, keywords) that occur in the collection (col. 3 line 21, data objects associated with those keywords)]

“accepting user queries in a search engine;”[See figure 1. Accordingly, accepting user queries in a search engine (figure 1 elements 100-110 and col. 3 lines 2-3, a user interface 100 for users to input queries.)]

“responsively to the queries searching the document index with the search engine to identify documents of the collection that satisfy the queries, respectively; and”[Accordingly, responsively to the queries (col. 3 lines 2-3, query) searching the document index (figure 1

element 120, keyword index) with the search engine (figure 1 element 110, search engine) to identify documents of the collection that satisfy the queries, respectively (col. 3 line 21, data objects associated with those keywords)]

“adding the queries to the respectively identified documents as metadata.”[See col. 4 line 3 and col. 4 lines 43-45. Accordingly, “adding” (linking) “the respective queries” (col. 4 lines 43, keywords) “to the identified documents” (col. 4 line 3, linking each keyword with the object's id returned by the search engine) “as metadata” (col. 4 lines 44-45, these associations)]

Claim 67 :

Cole discloses “the step of enhancing the document index to include the added queries in the document index.”[Accordingly, the step of enhancing the document index (keyword index) to include the added queries in the document index (col. 4 lines 44-45, associations are then added to the master index or the auxiliary index)]

Claim 68 :

Cole discloses “wherein enhancing the document index further comprises including therein a frequency of occurrences of the added queries in the collection.”[See col. 4 lines 22-30. Accordingly, wherein enhancing the document index (col. 4 line 22 and line 30, deletion of keyword-object associations / new and frequent are generally kept) further comprises including therein a frequency of occurrences (col. 24-25, lowest to highest frequency) of the added queries in the collection (col. 4 line 22, keyword)]

Claim 69 :

Cole discloses “further comprising accepting new user queries in the search engine and performing the step of searching a second time responsively to the new user queries and using the enhanced document index as the document index.”[further comprising accepting new user queries in the search engine (figure 2 element 201) and performing the step of searching a second time (figure 2) responsively to the new user queries (figure 2 element 201) and using the enhanced document index as the document index (figure 2 element 220, index keywords matched)]

Claim 70 :

Cole discloses “further comprising the steps of:

identifying old added queries whose time stamps are older than a predefined value; and”[See figure 4 and col. 4 lines 22-39. Accordingly, identifying old added queries (old keywords) whose time stamps (date) are older than a predefined value (old and frequency)]
“removing the old added queries from the document index.”[figure 4, delete from index and See figure 4 and col. 4 lines 22-39. Accordingly, removing the old added queries (old keywords) from the document index (figure 4, delete from index)]

Claim 71 :

Cole discloses “wherein associating respective time stamps further comprises updating the time stamps of reused ones of the added queries.” [Accordingly, wherein associating respective time stamps (col. 4 lines 47-48, date) further comprises updating the time stamps of reused ones of the

added queries (figure 3 element 325, statistics of date and usage are updated if they are kept by the system)]

Claim 72 :

Cole discloses “wherein the queries comprise phrases” [col. 3 lines 60-61, single words or multi-word phrases].

Claim 73 :

Cole discloses “wherein the queries comprise natural language terminology.”[col. 3 line 6, natural language]

Claim 75 :

Cole discloses “further comprising ranking the identified documents according to a predetermined heuristic, and the step of adding the queries is performed only with a highly ranked portion of the identified documents.”[col. 1 lines 45-47, ranking the returned objects by analytical or statistical properties that are intended to reflect the presumed relevance or importance of the object. Accordingly, further comprising ranking the identified documents (ranking the returned objects) according to a predetermined heuristic (by statistical properties), and the step of adding the queries is performed (figure 2 element 250, associating keywords with objects) only with a highly ranked portion of the identified documents (figure 3 delete most deletable association)]

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claim 74 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6571239 by Cole et. al. (hereafter Cole) further in view of U.S. Patent Application Publication 20040261021 by Mittal et. al. (hereafter Mittal).**

Claim 74 :

Cole does not explicitly discloses “wherein a language of the queries differs from a language of the identified documents.”

Mittal discloses in the abstract queries can be expressed using character sets and/or languages that are different from the character set and/or language of at least some of the data that is to be searched. Accordingly, wherein a language of the queries (queries can be expressed using character sets and/or languages) differs (different) from a language of the identified documents (from the character set and/or language of at least some of the data that is to be searched).

Cole and Mittal are all directed towards document search and therefore all are within the same field of endeavor as applicant's invention. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Mittal's disclosure above to the

combination of Prokoph and Cole for the purpose of allowing various devices to utilize the benefits of the search indices. Devices such as mobile phones would be too tedious for query entry, and further typing in different languages using ASCII keyboard also would be tedious and slow see 0006 and 0018 of Mittal. Accordingly, by allowing different languages to be entered in as queries, it allows for an improvement in the over all search process.

Response to Arguments

9. Applicant's arguments with respect to claims 66-75 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's assert the following with regard to the cited reference:

A. That “adding the respective queries to the identified documents as metadata” is not disclosed. Stating that as supported by affidavit this is done by “embedded metadata” and that there is no modification of a document. Applicants’ assert that the associations of Cole concern updates of various kind to an index or auxiliary index of the data objects in the repository with no change to the data objects (documents).

In response, there is nothing in the claims that state that the metadata must be embedded to the identified documents nor the structure of the document is claimed. The modification is therefore unclear. The claim is not specific in regards to how the metadata is added to the identified documents. All the limitation requires is adding the respective queries to the identified

documents as metadata. Regarding how the queries are added to the identified documents as metadata is not claimed, nor does it appear to be described by the original specification.

The Cole reference thus discloses “adding” (linking) “the respective queries” (col. 4 lines 43, keywords) “to the identified documents” (col. 4 line 3, linking each keyword with the object’s id returned by the search engine) “as metadata” (col. 4 lines 44-45, these associations)

In summary, the difference the applicant’s appear to assert is that the metadata is embedded in the document rather than being stored separately in an index. However, the claim does not state that the metadata is embedded in the document, nor is the structure of the document clearly disclosed in regards to the claimed limitation. The Cole reference discloses adding (col. 4 line 3, linking) the respective queries (keywords) to the identified documents (linking keyword with the object’s id returned by search engine, col. 4 line 3) as metadata (see col. 4 lines 44-45, associations).

B. Applicant's further assert that figure 2 of Cole presents logic for deletion of keyword object associations when the index reaches a maximum size. That claim 66 recites adding queries to documents as metadata.

In response, see above part A for adding queries to documents as metadata. In regards to logic for deletion, figure 2 also keeps new associations and frequently used associations, see col. 4 line 30 and therefore discloses adding metadata.

Conclusion

The prior art made of record listed on pto-892 and not relied, if any, upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PHAM whose telephone number is (571)272-3924. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. P./
Examiner, Art Unit 2167

/John R. Cottingham/
Supervisory Patent Examiner, Art Unit
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